

Characteristic (D Coded) Waste Management and Disposal Guidelines

Hospitals, pharmacies, and other healthcare providers use a variety of pharmaceutical products that contain hazardous chemicals, including those that exhibit a hazardous characteristic when they become “waste.” Characteristic wastes are managed under the New Hampshire Hazardous Waste Rules (Env-Wm 100-1100).

Pollution Prevention techniques can reduce “waste” pharmaceuticals:

1. Return the product to a distribution company or manufacturer through a “take-back” program. Review the facility’s group purchasing organization contract for further information; some of these services are included in the contract.
2. Create an inventory control program to limit the amount of products that expire before use. Resources spent on the management of expired products are resources lost.
3. Reformulate to reduce heavy metal concentration, such as mercury and m-cresol preservatives.
4. Contact New Hampshire Hospitals for a Healthy Environment at NH3E@lists.healthynh.com for additional ideas and suggestions.



Characteristic Hazardous Wastes

Healthcare providers should sample and analyze waste to properly identify its hazardous characteristics or apply generator knowledge of the hazardous nature of the waste based on the materials or processes used to generate it. Refer to Env-Wm 502.01(c).

A characteristic hazardous waste is defined as a waste that has been identified to exhibit one or more of the following attributes; refer to Env-Wm 403:

1. Ignitable – Flash point is less than 140 F.
2. Corrosive – pH is less than or equal to 2.0 or great than or equal to 12.5.
3. Reactive – Reacts violently with water or air; is explosive, or cyanide or sulfide-bearing.
4. Toxic - Fails the Toxicity Characteristic Leaching Procedure (TCLP). TCLP testing includes heavy metals, pesticides, herbicides and listed organics.

Examples of Ignitable Wastes (D001)

- Acetone Potassium Distillates
- Bromine Tablets
- Methanol
- Nitric Acid
- Petroleum Naptha
- Triethylamine
- Xylene
- Zinc Powder

Examples of Corrosive Wastes (D002)

- Formic Acid
- Glacial Acetic Acid
- Hydrochloric Acid
- Sodium Hydroxide

Examples of Reactive Wastes (D003)

- Cyanide
- Potassium Cyanide

Examples of Toxicity Characteristics and Maximum Concentration of Contaminants

The complete list of toxicity characteristic wastes and maximum concentrations of contaminants can be found at Env-Wm 403.06(d). The following is a sample list:

- | | | | |
|--------------|-------------------|------------|-----------------|
| • Arsenic | D004 – 5.0 mg/L | • Lead | D008 – 5.0 mg/L |
| • Barium | D005 – 100.0 mg/L | • Lindane | D013 – 0.4 mg/L |
| • Cadmium | D006 – 1.0 mg/L | • Mercury | D009 – 0.2 mg/L |
| • Chloroform | D022 – 6.0 mg/L | • Selenium | D010 – 1.0 mg/L |
| • Chromium | D007 – 5.0 mg/L | • Silver | D011 – 5.0 mg/L |
| • m-Cresol | D024 – 200.0 mg/L | | |

Prohibited Disposal Options of Characteristic Wastes

Waste pharmaceuticals that have been identified and exhibit a hazardous characteristic should not be disposed of in the following ways:

1. Solid Waste – trash.
2. Infectious Waste – red bag waste.
3. Sewerage – down the drain.

Pollution Prevention at Healthcare Facilities

Since 1998, the Department of Environmental Services' New Hampshire Pollution Prevention Program has undertaken a project promoting pollution prevention opportunities at healthcare facilities. This on-going project involves providing on-site assistance at participating facilities, setting up an infrastructure to promote continuous environmental improvement, and providing outreach and training activities to New Hampshire healthcare facilities.

For further information on Pollution Prevention at Healthcare Facilities, contact Sara Johnson, DES, at (800) 273-9469 or sjohnson@des.state.nh.us.

For more information on hazardous waste, contact:

Hazardous Waste Compliance Section toll free (866) – HAZWAST

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